



Special Attention of:

Field Office  
Director of Housing  
Director of Housing Management  
Field Office, Chief Property  
Officers

**Transmittal** for Handbook No: 4910.1 1994 Edition

Issued: July 29, 1994

1. This Transmits

Revisions to HUD Handbook 4910.1, Minimum Property Standards for Housing, 1994 Edition.

2. Significant Changes:

The handbook has been revised to incorporate existing policy and procedures which are the result of change in policy, regulation or statute. In addition, many of the reference standards have been updated to reflect current construction products in use today.

Chapter 1 - Introduction

Chapter 1 provides a statement of policy that requires the use of this handbook under specific programs administered by the Department. This chapter also relates to the requirements for multi-family and care type housing as well as housing for the elderly. In addition, requirements for accessibility for the physically handicapped have been added in this chapter to comply with the requirements of the fair housing act.

Chapter 2 - General Acceptable Criteria

Chapter 2 deals with criteria for the property, i.e. streets, utilities and access.

Chapter 3 - Site Design

Chapter 3 cover the requirements for on site design that relates to the building design, location on the property, ground water, yards, grading, walks, parking etc.

Chapter 4 - Building Design

Chapter 4 deals with the building design. It covers such items as space planning, access, circulation, stairs, elevators, ventilation etc.

Chapter 5 - Materials

Chapter 5 illustrates the kind and quality of materials acceptable to ensure durability, economy, resistance to weather and moisture, corrosion and fire etc.

## Chapter 6 - Construction

Chapter 6 deals with the requirements for the building construction from the site development to the actual materials used for construction. It also includes such items as elevators, water and sewer supply, various mechanical items, including energy and swimming pools.

The Appendices, "A" through "K" are a part of this MPS and are intended to be used accordingly.

Appendix - A - Represents definitions of various terms used throughout the text of the MPS.

Appendix - B - Represents an updated listing of acronyms and organizations or terms used in the MPS.

Appendix - C - Represents an updated listing of acceptable materials reference standards

Appendix - D - Represents test procedures and performance criteria considered acceptable for testing various construction materials.

Appendix - E - Represents an updated lists of acceptable engineering practice standards.

Appendix - F - Represents a listing of Use of Material bulletins on products that HUD engineers have investigated and found their performance to be acceptable.

Appendix - G - Represents "SI" ( Metric ) conversion units.

Appendix - H - Is a current listing of various organizations that develop and make available material standards that are referenced in the MPS.

Appendix - I - Represents rules to be followed for HUD programs for Multi-Family and Care type housing projects where local or model codes are used for construction.

Appendix - J - Represents model code provisions to be used in conjunction with an area code having a partially accepted code.

Appendix - K - Represents rules to be followed for HUD programs for One and Two Family housing projects where local or model codes are used. Updates HUD flood hazard exposures to conform with FEMA requirements under the National Flood Insurance Program.


3. Effective Date:

These changes became effective Dec. 15, 1993.

4. Filing Instructions:

REMOVE  
Handbook 4910.1,  
1984 edition with changes

INSERT  
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\_\_\_\_\_  
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Assistant Secretary for Housing -  
Federal Housing Commissioner

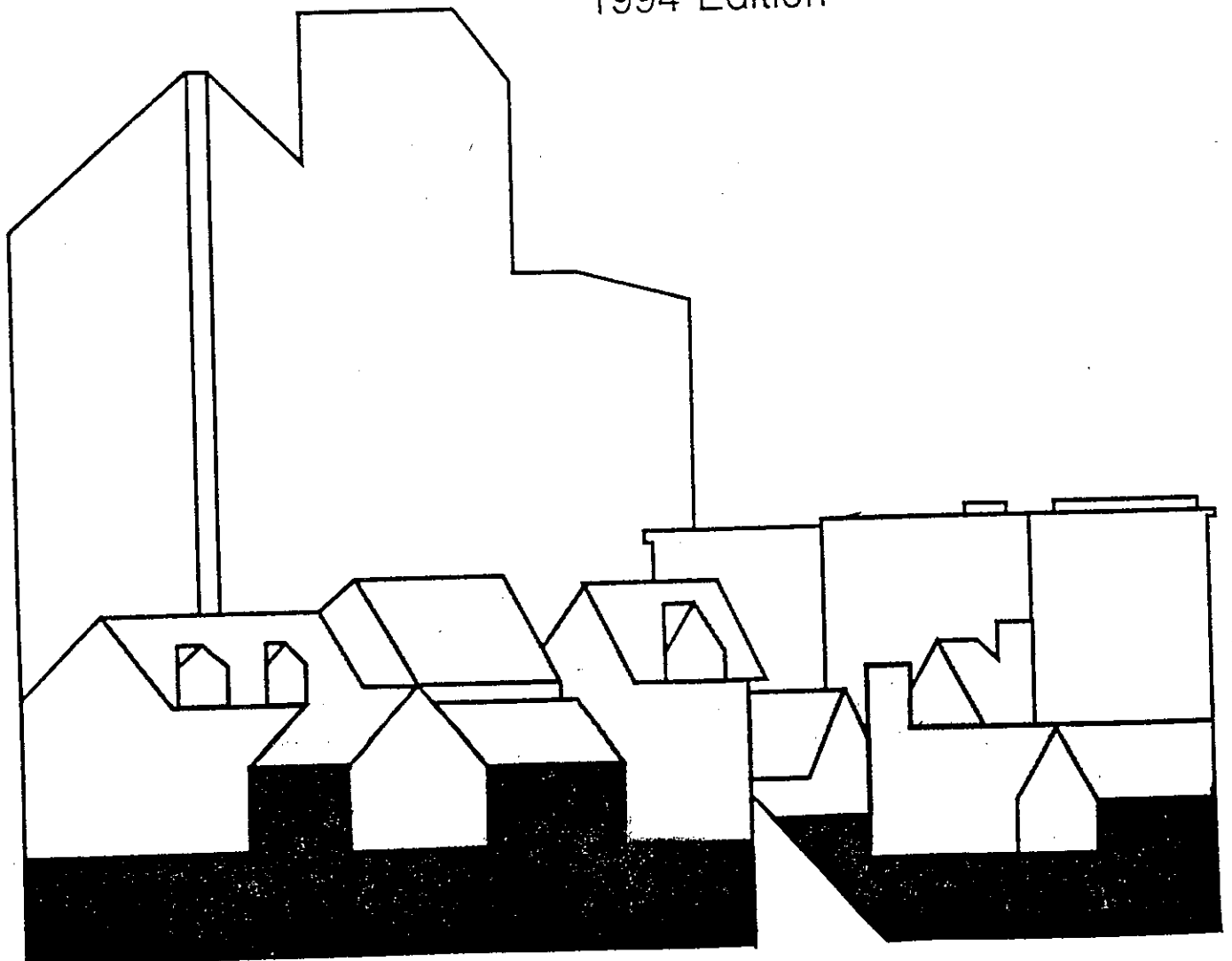


U.S. Department of Housing and Urban Development  
Office of Housing

4910.1

# Minimum Property Standards for Housing

1994 Edition



MINIMUM PROPERTY STANDARDS FOR HOUSING  
4910.1

U. S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
Office of Assistant Secretary for Housing -  
Federal Housing Commissioner  
Washington, DC

1994 Edition

## FOREWORD

These Minimum Property Standards reference nationally recognized model building codes for concerns relating to health and safety. Locally adopted building codes can be used for the same purpose when they are found acceptable by the HUD Field Office.

These standards establish the acceptability of properties for mortgage insurance, and will further the goal of a decent and a suitable living environment for every American family. These standards will protect the Department's interest by requiring certain features of design and construction which are not normally required by state and local codes. These requirements will insure the durability of the project for the life of the mortgage.

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Nicolas P. Retsinas  
Assistant Secretary for Housing -  
Federal Housing Commissioner

## Introductory Statement

These Minimum Property Standards (MPS) are intended to provide a sound technical basis for the construction of housing under the numerous programs of the Department of Housing and Urban Development. MPS Handbook 4910.1 was originally published for multifamily housing with each page marked MF. The Handbook applies to all types of housing. Chapters 1 thru 6 and Appendices A thru J apply to only multifamily and care-type housing. Appendix K applies to property which is not multifamily or care-type housing. The standards describe those characteristics in a property which will provide present and continuing utility, durability, and economy of maintenance.

The MPS for Housing (4910.1) are intended to be used in all jurisdictions. In areas where the Department has found the local code acceptable, these MPS are to be used in conjunction with the local code. In areas where the Department has not accepted the local building code, these MPS are to be used in conjunction with a nationally recognized model building code designated by the Department.

Finally, in areas where the Department has partially accepted a local building code, the MPS are to be used in conjunction with the local building code plus those portions of a nationally recognized model code designated by the Department.

The requirements contained in this handbook and in the indicated codes define the minimum level of quality acceptable to HUD. Other factors and considerations affect the level of quality of the property. The level of quality will be considered by the Department during the valuation process. Procedures for evaluation of design considerations, project eligibility and valuation analysis are set forth in HUD program handbooks and other applicable Federal and local regulations and standards.

Environmental quality is also a relevant consideration. As a general policy, development of all properties must be consistent with the national program for conservation of energy and other natural resources, and care must be exercised to avoid air, water, land and noise pollution and other hazards to the environment. Orderly and efficient development responsive to residential needs, preservation of good existing natural surroundings, conservation of fossil fuels, and careful consideration of environmental factors are essential for the furtherance of this policy.

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Page numbers of the MPS indicate the chapter first and the page within the chapter second. Appendices are similarly numbered.



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## CHAPTER 1

## GENERAL USE

100        APPLICATION

## 100-1     PROPOSED CONSTRUCTION

General

These Minimum Property Standards apply to buildings and sites designed and used for normal multifamily and care-type occupancy, including both unsubsidized and subsidized insured housing. The requirement of compliance with these standards under specific programs administered by the Department is prescribed in program regulations promulgated by the Department. Generally, these standards regulate the nature and quality of the property within its property lines. However, some standards require certain off-site conditions. See, for example, §204-1, which requires street access to the property.

100-2     HOUSING FOR THE ELDERLY

This Section includes Uniform Federal Accessibility Standards (UFAS) at 24 CFR Part 40, Appendix A and variations, additions and exceptions to the MPS for the above types of housing, when housing is to be for the elderly.

The number of accessible housing units which must be built will be determined on a project-by-project basis in accordance with the requirements of the program under which the project is to be built. Accessible housing units shall also meet all the facility accessibility requirements of UFAS.

## 100-2.1   Handrails

Handrails for exterior steps not attached to dwellings shall be provided in accordance with UFAS on both sides of a tenant stairway with a flight rise exceeding 24" and width exceeding 4 ft., and on one side when the width is 4 ft. or less.

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100-2.1 HOUSING FOR THE ELDERLY - Continued

100-2.2 Walks

Walks designed for use by tenants shall have maximum gradients of five percent.

100-2.3 Community Social Rooms

Community social rooms are required in housing for the elderly.

100-2.4 Optional Project Facilities

Where the following facilities are provided, they shall comply with the following:

- (a) Occupational or Physical Therapy - Space shall be provided for services and for storage of equipment.
- (b) Dietitian's Office - When a dietitian is to be employed, suitable office space convenient to the kitchen shall be provided.
- (c) First Aid or Health Room - These facilities and any accompanying infirmary shall be designed for observation, minor treatment, or short term care of project residents. When these services are provided, facilities for an attending nurse are required.
- (d) Nursing Facilities - These facilities for either short-term or long-term care for project residents shall be as follows:
  - (1) If nursing facilities are not provided at the time of construction, residential units may be specially designed for conversion to nursing facilities at a later date.
  - (2) Facilities shall be grouped in a separate wing, floor or auxiliary building.
  - (3) The nursing unit and patient rooms shall comply with requirements of UFAS.

100-2

HOUSING FOR THE ELDERLY - Continued

- (4) The nursing portion of the project shall be clearly incidental to the purpose of providing housing, and the ratio of nursing beds to living units shall not exceed 1 to 4.
- (e) Medical Facilities - Where a doctor's office with examination and treatment rooms is provided, it shall be designed to serve project residents. Spaces provided for rental to doctors, dentists, oculists, opticians, etc., shall be within the limits of allowable commercial space and located so as not to interfere with the residential space.
- (f) Central Dining - Where mandated by the program requirements, space shall be provided for meals.
- (g) Central Kitchen Facilities - The kitchen shall be arranged and equipped for adequate and efficient: food storage; preparation in proper sequence; serving; dish and utensil cleaning and storage; and refuse storage and removal. In projects consisting of 20 or more living units, the dishwashing activity shall be separated from that of food preparation. All cabinets and equipment provided shall be designed and installed to prevent contamination by insects, rodents, other vermin, splash, dust and overhead leakage.
- (h) Central Bathing Facilities - Such facilities shall be located on the same floor and close to the living units served.

When provided, a central bathroom shall contain:

- (1) Space for dressing and the movement of wheelchairs provided in accordance with the requirements of UFAS, Section 4.

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100-2      HOUSING FOR THE ELDERLY - Continued

- (2) Adequate lavatories and compartmented water closets. Enclosure of water closets is not required when the water closet is within a room used by only one bather. Designs in which a bather must enter the public corridor to reach a water closet are not acceptable.

100-2.5    Bedrooms

- a. Beds shall be accessible from two sides and one end.
- b. Combined living-sleeping space shall be of sufficient size to accommodate the living and sleeping functions as conveniently as separate living and sleeping areas.

100-2.6    Bathrooms

- a. Bathtubs shall be provided with grab bars as specified in Section 4.26 of the UFAS.
- b. A stall shower, when installed, shall meet the requirements of the UFAS Section 4.21, Shower Stalls.
- c. Tub or shower bottom surfaces shall be slip resistant.
- d. Grab bars and shower seats shall be installed to sustain a dead weight of 250 pounds for 5 minutes and comply with UFAS.

100-2.7    Halls and Corridors

- a. Minimum clear widths of public halls and corridors shall be 5'-0".
- b. Handrails complying with UFAS shall be provided on at least one side of all tenant corridors, except in living units.

100-2     HOUSING FOR THE ELDERLY - Continued

## 100-2.8     Stairs

The maximum riser height for stairs is 7".

## 100-2.9     Elevators

- a.     Elevators complying with UFAS shall be provided in buildings of three or more stories; or two stories if any accessible living unit is located on a floor which does not have all common facilities.
- b.     At least one elevator car in each building shall be suitable for handling ambulance stretchers and have a minimum capacity of 2500 lbs. and minimum size as required for service elevator under 614-1.

## 100-2.10    Emergency Lighting

Emergency lighting shall be provided for every public space, corridor, stairway, elevator and other means of egress. The lighting shall provide a minimum of 1 footcandle measured at the floor.

## 100-2.11    Flame Spread

The flame spread rating of walls and ceiling shall not exceed 75.

## 100-2.12    Wall Finishes

Abrasive wall finishes such as a sand finish shall not be used.

## 100-2.13    Floors

- a.     Floors shall be slip-resistant.
- b.     Adjacent dissimilar materials shall be flush with each other to provide an unbroken surface. Thresholds and Expansion Joint covers shall be flush with the floor.

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100-2      HOUSING FOR THE ELDERLY - Continued

100-2.14    Heat Loss Calculations

The inside design temperature shall not be less than 75 F in all habitable rooms and corridors when the outside temperature is at design level. Lower inside design temperatures may be used for storage rooms, work rooms, offices and other similar spaces.

100-2.15    Hot Water and Steam Heating Systems

Heating systems serving 10 or more living units shall be supplied by not less than two properly parallel connected boilers. The minimum net capacity of each boiler shall be 70% of the total connected load when two boilers are used and 35% when three boilers are used. When four or more boilers are used, the total capacity of all boilers shall not be less than the total connected load, and each boiler shall have the same net capacity. When the property contains nursing facilities, 1 1/2 beds shall be considered the equivalent of one living unit for purposes of this requirement.

100-2.16    Hot and cold water shall be supplied to all plumbing fixtures except water closets, urinals, bedpan washers, and drinking fountains, each of which will be supplied with cold water only.

100-2.17    Automatic temperature limit controls shall be provided so that hot water for showers will not exceed 110 F.

100-2.18    The quantity of hot water for personal use and the capacity of the domestic hot water heating equipment system shall be in compliance with the design criteria of ASHRAE Systems Handbook, 1980, Chapter "Service Water Heating."

100-2      HOUSING FOR THE ELDERLY - Continued

## 100-2.19   Night Light

A convenience outlet for receiving a night light shall be provided approximately 2 ft. above the floor between the bed location and the bathroom.

## 100-2.20   Emergency Call Systems

In projects containing 20 or more living units, each bathroom and one bed location in each living unit shall be furnished with one of the following emergency call systems: an emergency call system which registers a call (annunciator and alarm) at one or more central supervised locations, an intercommunicating telephone system connected to a switchboard which is monitored 24 hrs a day, or an emergency call system which sounds an alarm (not the fire alarm) in the immediate corridor and automatically actuates a visual signal in the corridor at the living unit entrance.

100-3      REQUIREMENTS FOR ACCESSIBILITY TO PHYSICALLY  
DISABLED PEOPLE

All multifamily dwellings covered by the Fair Housing Amendments Act of 1988, for first occupancy after March 13, 1991 must be designed and constructed to have at least one building entrance on an accessible route and shall be designed and constructed in such a manner that:

- 100-3.1    The public and common use areas are readily accessible to and usable by disabled persons:
- 100-3.2    All the doors designed to allow passage into and within all premises are sufficiently wide to allow passage by disabled persons in wheelchairs; and
- 100-3.3    All premises within covered multifamily dwelling units contain the following features of adaptable design:
  - a.    An accessible route into and through the covered dwelling unit;



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100-3      REQUIREMENTS FOR ACCESSIBILITY TO PHYSICALLY  
DISABLED PEOPLE - Continued

- b.    Light switches, electrical outlets, thermostats and other environmental controls in accessible locations;
- c.    Reinforcements in bathroom walls to allow later installation of grab bars around the toilet, tub shower, stall and shower seat, where such facilities are provided; and
- d.    Usable kitchens and bathrooms such that an individual in a wheelchair can maneuver about the space.

100-3.4    One method of compliance with these requirements is satisfactory compliance with the Fair Housing Accessibility Guidelines 24 CFR Ch.I, Subch. A. App. II and III.

100-3.5    For multifamily dwelling covered by this section see 24 CFR 100.201.

100-4      REQUIREMENTS FOR CARE TYPE FACILITIES

100-4.1    Construction

Care Type Facilities shall comply with requirements of The Guidelines for Construction and Equipment of Hospitals and Medical Facilities as published by the AIA press, 1987 edition.

100-4.2    Housing Units and Patient Rooms

At least 50 percent of living units, patient rooms or bedrooms and associated facilities shall comply with the requirements of UFAS.

100-5      REHABILITATION CONSTRUCTION

Rehabilitation construction includes the following categories: (1) all repairs to or replacement of present elements of an existing building, such as windows, stairs, flooring, or wiring, (2) rearrangement of rooms by the relocation of partitions or by the installation of

100-5      REHABILITATION CONSTRUCTION - Continued

new bathrooms and kitchens; or (3) the general replacement of the interior of a building. This may or may not include changes to structural elements such as floor systems, columns or load bearing interior or exterior walls. Rehabilitation construction shall comply with the standards for new construction and with the provisions of the program handbook for the particular program. New construction on cleared or vacant land or additions to an existing building which enlarge the floor area or height of the building shall meet the standards for new construction.

101      VARIATIONS TO STANDARDS

## 101-1      NEW MATERIALS AND TECHNOLOGIES

These standards are intended to encourage the use of new or innovative technologies, methods and materials. See Subchapter 613 of this handbook. Alternatives and non-conventional or innovative methods and materials shall be equivalent to these standards in the areas of quality, durability, economy of maintenance, operation and usability.

## 101-2      SPECIAL CONDITIONS

Certain conditions in the geographic area or on the site may justify modification of specific standards, or make compliance with the standards impracticable or impossible. In these cases, variations in accordance with procedures given in 101-3 may be permitted.

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101-3 VARIATION PROCEDURES

101-3.1 Variations from the requirements of any standard with which the Department requires compliance shall be made in the following ways:

- a. For a particular design or construction proposed to be used on a non-repetitive basis for a specific case or project, the decision is the responsibility of the Field Office. Headquarters concurrence is not required.
- b. Where a variation is intended to be on a repetitive basis, a recommendation for a Local Acceptable Standard, substantiating data, and background information shall be submitted by the Field Office to the Headquarters Office responsible for the Minimum Property Standards.

101-3.2 Variations which require individual analysis and decision in each instance are not considered as repetitive variations even though one particular standard is repeatedly the subject of variation. Such variations are covered by the subject of Section 101-3.1a.

102 LOCAL CODES AND REGULATIONS

102-1 CODES AS STANDARDS

Acceptability of new construction for insurance or for utilization in other programs administered by the Department requires, among other things, compliance with minimum health and safety criteria. The Minimum Property Standards for Housing consist of the standards contained in and referenced by this handbook and the codes and standards with which compliance is required by 24 CFR 200.925 and .926. The relevant portions of 24 CFR 200.925 and .926 are reproduced in Appendix I and K of this handbook.

## 102-1.1 COMPLIANCE WITH CODES

The Department of Housing and Urban Development does not assume responsibility for enforcing or determining compliance with local codes and regulations or for making interpretations regarding their application for purposes of the local government. However, if compliance with the provisions of a local code is required in accordance with 24 CFR 200.925 or .926, then the Department is responsible for determining compliance and issuing interpretations for the Department's purposes.

103 REFERENCED STANDARDS

These standards must be used in conjunction with the information or requirements listed in Appendices A through I, which are incorporated herein by reference. Compliance with these standards and the requirements in the appendices does not obviate the need for compliance with any other applicable Federal, State or local requirements.

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